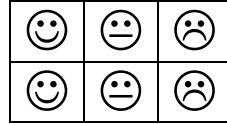
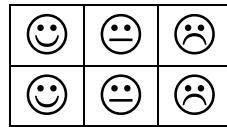


## STRAIGHT LINE

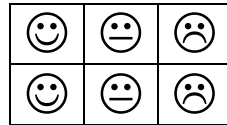
**A:** I understand what gradient is.



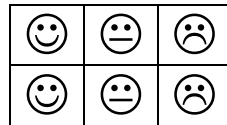
**B:** I know how to calculate gradient from a diagram.



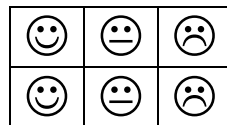
**C:** I can calculate the gradient between two points



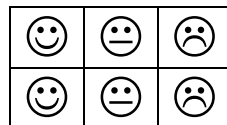
**D:** I can work with the straight line equation  $y = mx + c$



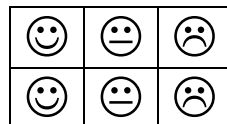
**E:** I can work with lines parallel to the axes.



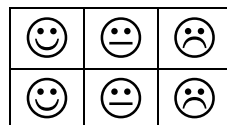
**F:** I know that parallel lines have equal gradients.



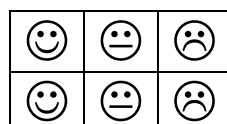
**G:** I can use formula  
 $y - b = m(x - a)$



**H:** I can rearrange linear equations to identify the gradient and y-intercept.

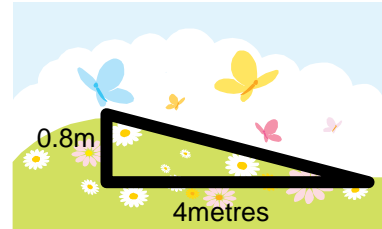


**I:** I can find the equation of a line of best fit on a scattergraph and use it to estimate one value given another.



Gradient describes \_\_\_\_\_

What is the gradient of this slope?



Calculate the gradient between

- (i) A(1,7) and B(9, 3)
- (ii) C(-3,-5) and D(6,-2)
- (iii) E(5,0) and F(-1,6)

What is the gradient of the line with equation  $y = 4x + 3$ ?

Where does the line intersect the y-axis?  
Write down the equation of a line with gradient -3 and y-intercept 2.

What is the gradient of a line parallel to the x-axis?

What is the equation of a line parallel to the x-axis and going through the point (1, 3)?

What is the gradient of a line parallel to the y-axis?

What is the equation of a line parallel to the y-axis and going through the point (-2, 5)?

Four points are plotted at A(1,2), B(5,-1), C(-4,0) and D(0,-3).

Show that AB is parallel to CD.

What is the equation of a line with gradient 3 and going through the point (2,5)?

What is the equation of a line going through points A(5,8) and B(3,-2)?

Find the gradient and y-intercept of the lines:-

- (i)  $2y = 6x - 3$
- (ii)  $2x + 3y = 6$
- (iii)  $3x - 4y + 12 = 0$

See Statistics work in Applications booklet